



DIGITAL MOBILE RADIO
MNR3500

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The MNR3500 is a next-generation enterprise-grade digital mobile radio that supports DMR Tier II/Tier III trunking and NXDN digital protocols while maintaining compatibility with analog communications. It integrates a 25W high-power RF module, AES-256 encryption, multi-mode satellite positioning (GPS/Beidou), and remote management capabilities. Designed for professional communication scenarios, it is well-suited for logistics and transportation, manufacturing, energy and power, construction engineering, campus and property management, as well as mining and resource sectors.



Product Features

- **Extended Coverage**
25W RF output ensures reliable communication across large facilities, remote sites, and challenging terrain.
- **Communication Security**
AES-256 encryption protects sensitive operational data. Remote disable capability prevents unauthorized use of lost units.
- **Flexible Operation Modes**
Supports dual-mode digital/analog operation, enabling phased migration while maintaining compatibility with legacy equipment.
- **Real-Time Location Tracking**
Features built-in GPS/BeiDou/GLONASS positioning, integrated with dispatch software for vehicle tracking and personnel coordination.
- **Ruggedized Design**
Rated IP54 and compliant with military durability standards, ensuring stable performance in dusty, humid, vibrating, and extreme temperature environments.
- **Clear Audio Performance**
Incorporates AMBE+2 vocoder and intelligent noise cancellation to deliver clear voice communication even in high-noise vehicle environments.

Technical Specifications

Radio Performance

Frequency Bands	UHF: 350-400MHz / 400-470MHz / 450-520MHz
Channel Capacity	2,000 channels across 64 zones
RF Output Power	10W / 25W selectable
Protocols	DMR Tier II, DMR Tier III Trunking
Channel Spacing	6.25 / 12.5 / 25 kHz
Vocoder	AMBE+2
Encryption	AES-256, ARC4
Receiver Sensitivity	0.20 µV (Digital) / 0.18 µV (Analog) @ 12dB SINAD
Audio Output	3W into 4Ω internal speaker

Physical & Environmental

Dimensions	170 × 170 × 57 mm
Weight	1.65 kg (with bracket)
Operating Voltage	13.6 V DC (±15%)
Operating Temperature	-30°C to +60°C
Ingress Protection	IP54 (dust and splash resistant)
Durability	MIL-STD-810G compliant
Display	1.77" TFT color LCD

Features & Functions

Calling Modes	Private, Group, All Call, Emergency
Positioning	GPS / Beidou / GLONASS (optional)
Special Functions	SFR (Single Frequency Repeater), Remote Stun/Revive, Radio Check
Messaging	Text messaging, status updates
Bluetooth	Optional BT headset and speaker-mic support



MOBILE DISPATCH OPERATIONS

Enables reliable voice communications between vehicles, control rooms, and field teams in high-noise, mission-critical environments.

